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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/496,656	02/03/2000	Yoshimasa Saitoh	P99.2475	6539

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EXAMINER

HON, SOW FUN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/496,656

Applicant(s)

SAITOH ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 8-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Petition

1. The petition under 37 CFR 1.137(b) to revive the abandoned application has been granted in Paper # 13 (mailed 12/02/03).

Rejections Withdrawn

2. The 35 U.S.C. 102(e) and 103(a) rejections in Paper # 9 (mailed 11/05/02) have been withdrawn due to Applicant's amendment in Paper # 12 (filed 11/12/03).

New Rejections

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamahara et al. (US 5,579,140) in view of Gibbons et al. (US 6,307,609).

Yamahara et al. has a liquid crystal display device 1, comprising a pair of transparent (glass) substrates 6, 7 being aligned via a predetermined distance therebetween with at least one of them having thereon a film for liquid crystal orientation (alignment films 9, 11), and a liquid crystal layer 5 put in the distance (sandwiched) between the substrates (column 10, lines 20-35). The liquid crystal display has a contrast ratio from 107 to 137, which is greater than 100.

The alignment film is a UV-reactive (ultraviolet photosensitive) film (column 12, lines 55-65). Yamahara et al., however, fails to teach that the film is exposed to first polarized UV

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rays while the film on the substrate is aligned parallel to a reference plane, and next to second polarized UV rays after the substrate is rotated on the reference plane.

Gibbons et al. ('609) teaches a liquid crystal display (column 1, lines 35-40) comprising substrates with UV-reactive (photosensitive) alignment films (layers) (column 11, lines 60-65), wherein the alignment films on the substrates are exposed to first polarized UV (ultraviolet) light (column 10, lines 25-35) rays. The substrates are then rotated 90 degrees (claim 9) about the normal to the plane of reference (of the substrates), and the films on the substrates are exposed to a second polarized light (column 11, lines 60-70). The relative ratio of exposing energies is 4/1 between the first and second exposures (column 12, lines 20-30), within the claimed range of 100/1 and 1/1 (claim 12). The pair of substrates is then assembled into a cell, which is then filled with liquid crystal to form a liquid crystal layer (column 12, lines 30-40). The angle is greater than 0 degrees but less than 360 degrees of relative rotation about the reference plane (normal to surface of the optical alignment layer) between the two exposures (column 10, lines 10-20), which encompasses the claimed range of 50 and 80 degrees (claim 11). The light source is a UV lamp, a non-electrode discharge-type since it is gas excited by a microwave source (column 10, lines 25-35).

Response to Arguments

5. Applicant's arguments with respect to claims 8-13 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished


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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

Sow-Fun Hon

01/30/04


HAROLD PYON
SUPERVISORY PATENT EXAMINER
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2/2/04